

NUCLEAR DIVISION NEWS

a newspaper for employees of the nuclear division • union carbide corporation



Vol. 10/No. 6 March 22, 1979

0973-79



Inside this issue. . .

GLACIAL SKIING—Cloyd Beasley, Fusion Energy, surveys the lonely landscape from a glacier in Europe. Beasley, who grew up in Wisconsin, waited until he got to Tennessee to get involved in skiing. His "different drummer" story appears on Page 7.

Other features:

Retirement club near 500 members.....	Page 2
Question Box.....	Page 3
Medicine Chest.....	Page 4
About People	Pages 4, 5
Paducah's Quality Assurance program.....	Page 8

Open house set for new facility

An informal open house is planned for the new engineering office building (K-1580) at ORGDP Saturday, March 24, from 2 to 4 p.m.

Employees in ORGDP Instrument and Computer Applications Engineering, Gas Centrifuge Mechanical Engineering and Estimating Engineering, as well as those in the Operating Contractors Project Office, who will occupy the offices, will be able to escort their families through the facility Saturday.

Local Goodyear Atomic Corporation and AiResearch personnel, who will jointly occupy the building, are also invited to bring their families to the open house.

The 38,000 square foot structure is the first building designed for the Nuclear Division with the open-office concept. Its construction is structural frame and precast concrete panels on side curtain walls.

The structure is presently outside the security perimeter, but will be inside the perimeter March 26, following the open house.

Automobiles will be parked in Portal 2's parking lot. entrance area. There will also be a building floor plan available.

Employees will act as guides for their own families on the tour. Children under 12 will have little interest in the tour. If employees should bring smaller children with them, they must remain under surveillance by those employees during the tour.

Light refreshments will be served during Saturday's tour.

Babelay, Datz additional Union Carbide Fellows

The designation of two members of the staff of the Nuclear Division as Union Carbide Corporate Fellows has been announced by Roger F. Hibbs, Nuclear Division President.

Selected for the honor are **Edwin F. Babelay** of the Separations Systems Division of ORGDP, and **Sheldon Datz** of the Chemistry Division, ORNL. Babelay was named a Corporate Engineering Fellow, and Datz, a Corporate Research Fellow.

Designation to receive the honor—one of the highest given by Union Carbide—is made on an extremely limited basis to those who have chosen research and development as a professional career and whose contributions have been both significant and continually high over a period of many years.

Babelay, who is associate technical director in the Separations Systems Division, has been a member of Nuclear Division staff since 1944. A native of Knoxville, he received a bachelor of science degree in agricultural engineering from the University of Tennessee.

Led centrifuge work

He led a team of mechanical engineers which assisted in the development of the zonal centrifuge, a device for producing ultrapure vaccines. Among his many contributions to this project were designs for improved reliability and operability of liquid centrifuges in biological service.

Babelay also has been active in the gas centrifuge development program. His contributions to the technical success of the U.S. gas centrifuge program have centered around many key features. On a number of occasions, the Department of State has requested his services with regard to exchange of centrifuge technology with the United Kingdom.

Babelay and his wife, the former Mary Elizabeth Whitehead, live at Route 27, Knoxville. They have three children, Edwin F. Jr., Mrs. Samuel Beckman and Mrs. Robert Nicholas.

Datz, who is a senior research staff member in the Chemistry Division at ORNL, has been associated with the Nuclear Division since 1951. He received his bachelor's and master's degrees in physical chemistry from Columbia University, and his Ph.D. from the University of Tennessee.

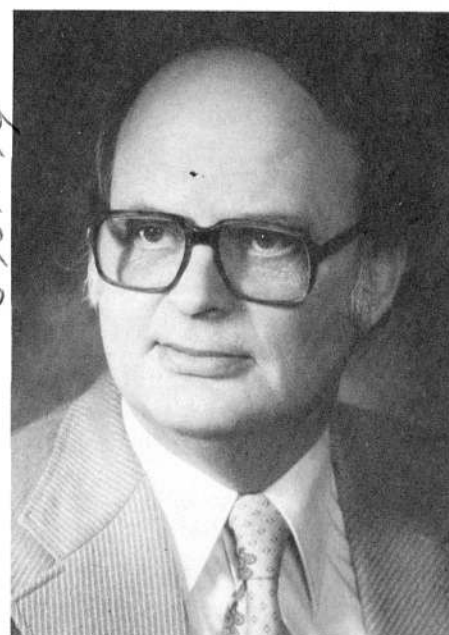
His areas of interest have included chemical dynamics, intermolecular energy transfer, high-temperature thermodynamics, particle-surface interactions, atomic collision physics and atomic collisions in solids. He performed the first successful study of a chemical reaction using molecular beam techniques. This helped to lay the foundation for the present field of chemical dynamics.

Present activities

Datz' pioneering work on particle-surface interactions included the first molecular beam experiment on energy exchange between thermal



Edwin F. Babelay



Sheldon Datz

molecules and solid surfaces. He also was the first to demonstrate that collision on the surfaces of solids could be used to study a single atomic process. Presently, as group leader for chemical dynamics and surface chemistry, his investigations center on ion-solid interactions, channeling phenomena and the role of electronic excitation in chemical reactivity.

Datz and his wife, Jonna, live at 869 West Outer Drive, Oak Ridge. They have two children, William and Joan.

Next issue. . .

This next issue will be dated April 5. The deadline is March 28.

Membership in retirement club nears 500 mark; plans detailed

With membership nearing the 500 mark, Union Carbide Retirees Association reiterates its call for action.

John Clark, retired assistant plant manager at Paducah, has set an organizational meeting in that area for 7 p.m. at the Jackson House in Paducah, March 25, and is urging all retired Carbiders in the area to attend to give their input concerning activities in which they wish to participate.

In the Oak Ridge area, a reception will be held April 26, 7 p.m., at the Senior Citizens' Center on the Turnpike for the same purposes. Both meetings will include plans for the picnic scheduled for June 8 at the Clark Center Recreation Park.

Membership cards for the organization are being printed and will be mailed shortly. Stationery is also being printed for the club.

Out-of-state members have begun to show, and thus far, Florida leads the list, with Alabama a close second. Interesting comments have accompanied many of the applications, with the general consensus being "it's about time!"

A roster of volunteers is being prepared to assist the Red Cross in future blood drives in the three Oak Ridge plants. Some volunteers

appeared at the recent drive held at ORNL, and others are expected to join future drives.

For those retirees who missed the original application, it is repeated below. Officials have stressed that spouses may join whether they are retired or not, no matter what their age. There was some misunderstanding when the first application appeared.

Camera Club...

A community camera club is being formed for interested shutterbugs. Anyone wishing more information about the group may contact Terri Laxson at the Paducah Chamber of Commerce, 443-1746. The group is presently meeting in the Paducah Community College Art Lab near the campus tennis courts.

UNION CARBIDE RETIREES ASSOCIATION

Membership Application

Name _____
Spouse _____
Address _____
City _____ State _____ Zip _____
Telephone—Area Code _____/Number _____

(Please note if applicant is widow or widower. Fill in "Spouse" line with deceased employee's name, year of retirement and plant from which retired.)

Check preference for membership in one of the following:
ORGDP _____ ORNL _____ Y-12 _____
Combined Oak Ridge Plants _____ Paducah _____

Indicate participation preference:

Golf _____ Bowling _____ Swimming _____
Tennis _____ Fishing _____ Dancing _____
Camping _____ Hiking _____ Picnics _____
Travel _____ Painting _____ Bridge _____

Place of travel _____
Others _____

Fee \$1 per person (Make check payable to:
Union Carbide Retirees Association)

Mail to:
P.O. Box 3501
Oak Ridge, Tennessee 37830
or
P.O. Box 238
Paducah, Kentucky 42001



Enjoying the leisure life. . .



Ruby R. Carruth
Finance, Materials &
Services, ORGDP
34 years service

Billy Carruth
Finance, Materials &
Services, ORGDP
31 years service



Robert L. Carson
Guard Department
Y-12
28 years service



Walter E. Clark
Chemical Technology
ORNL
24 years service



Margaret G. Elmore
General Employee
Relations, Y-12
33 years service



Joe F. Foster
Guard Department,
Paducah
28 years service



Joseph L. Fowler
ORNL, Physics
28 years service



Charles H. Green
Mechanical Inspection,
Paducah
35 years service



Laura B. Hawkins
Beta 2 Chemistry
Y-12
32 years service



Lillian H. Higgins
Y-12 Engineering
34 years service



Ruby K. Jones
Beta 2 Chemistry
Y-12
34 years service



Harold Long
Electrical Department,
Paducah
27 years service



Jean K. Redman
Solid State
ORNL
34 years service



Whitney J. Robertson
ORGDP Maintenance
34 years service



Lawrence C. Schumaker
Machine Shops,
Paducah
26 years service



Loyd H. Sheehan
Fabrication Shops,
Paducah
26 years service



Claude B. Stephens
Instrument Shop,
ORGDP
32 years service



William G. Stout
Electrical Department,
Paducah
26 years service



Robert J. Wertz
Analytical Services,
ORGDP
33 years service



Oliver C. Yonts
Fusion Energy
ORNL
32 years service

question box. . .

If you have questions on company policy, write the editor, **Nuclear Division News** (or telephone your question in, either to the editor, or to your plant contact). Space limitations may require some editing, but pertinent subject matter will not be omitted. Your name will not be used, and you will be given a personal answer if you so desire.

Eye appointments

QUESTION: Why do you have to make an appointment to get nonprescription safety glasses at ORNL?

ANSWER: Nonprescription glasses should fit the individual as well as prescription ones. Measurements for eye size, bridge size, and temple length are all made for nonprescription glasses, just as these and other measurements are made in the fitting of prescription glasses. People who do not need glasses for visual assistance are less likely to wear uncomfortable or ill-fitting glasses than are people who need them to improve vision, and, of course, safety glasses are of no value unless they are worn. ORNL gives those employees getting nonprescription safety glasses the same professional service as those getting prescription ones.

Job descriptions

QUESTION: I am a salaried employee and have been with Union Carbide for 10 years. I have never seen a copy of my job description. My supervisor keeps telling me it is being rewritten. What is Company policy regarding employees seeing copies of their job descriptions?

ANSWER: There is no reason why you cannot review either a copy of the description or the job specifications describing the job you are filling. A job description is written to cover the entire range of duties which are to be performed by all individuals within a job classification, and, therefore, may be slightly different than the specific duties performed by a given individual. Many of the monthly salaried jobs are described by the Position Charter, which is a part of the Union Carbide Management System.

NUCLEAR DIVISION NEWS

UNION CARBIDE CORPORATION
NUCLEAR DIVISION
Post Office Box Y
Oak Ridge, Tenn. 37830

EDITOR (Y-12)

James A. Young, 574-1643

ASSOCIATE EDITOR (ORNL)

Karen L. Cromer, 574-4163

ORGDP

Phillip E. Parrett, 574-8600

PADUCAH

Darlene Mazzone, Bell 208



Member,
INTERNATIONAL
ASSOCIATION
OF BUSINESS
COMMUNICATORS

Old Glory rules

QUESTION: Is there a rule about flying the American flag during inclement weather? The flag is up at Y-12, often with torn, faded stars and stripes, in all kinds of weather.

ANSWER: The flag should be displayed only from sunrise to sunset and is flown regardless of the weather. The flag should not be flown when torn, tattered, or otherwise defaced. We thank you for calling the condition of the flag to our attention. Corrective action has been taken.

Running red lights

QUESTION: If Carbide is serious about improving traffic safety, why isn't something done about the total disregard for red lights on Bear Creek Road between 4 and 4:30 p.m.? If you stop on Bear Creek Road and wait for the light to change, someone blows his horn from behind. This happens every day with most of the drivers exceeding the speed limit and running the red lights. Someone is going to get killed.

ANSWER: Carbide, the Department of Energy, and Oak Ridge City representatives recognize the serious traffic problems caused by some motorists who disregard traffic signals on Bear Creek Road. Currently, work is proceeding toward upgrading signals and lane markings to meet state standards. When this is accomplished, the Oak Ridge City Council will be asked to accept the system for City Police enforcement.

'State' addresses conflict

QUESTION: Why did Laboratory Director Postma schedule his "State of the Laboratory" address the same night President Carter gave his "State of the Union" address? Putting TV sets in the lobby was no help.

ANSWER: Postma scheduled the State of the Laboratory address a year ahead (February 1978) so that the ORAU museum facilities could be reserved for the evening. Unfortunately, only two weeks before Postma's address, President Carter announced his intention to give the State of the Union address on that same evening. Because the museum was unavailable at other convenient times, he decided to have TV equipment available for those who also had a desire to hear the President. It was possible to hear both addresses since Postma's ran from 8 to 9 p.m. and the President's began at 9 p.m. A number of people did take advantage of the TV sets. It was indeed unfortunate that the same date was chosen, but there was no way to predict the particular night the President would choose for his address. However, to avoid such conflicts in the future, attempts will be made to schedule State of the Laboratory addresses away from the time State of the Union addresses are "usually" given.

Cleveland named Engineering Technology group leader

John C. Cleveland has been named leader of the Nuclear Engineering Group in ORNL's Engineering Technology Division, Herbert E. Trammell, division director, has announced.

The activities of the Nuclear Engineering Group include reactor evaluations for the Nonproliferation Alternative Systems Assessment Program (NASAP), criticality safety and safeguards support to ORNL fuel recycle programs, and support to the division's Irradiation Engineering Group. In his new position, Cleveland will develop plans to expand the group's efforts in reactor core analysis and safety assessments.

Cleveland joined the Engineering Technology Division (then Reactor Division) in 1974. A native of Franklin, Ind., he holds a BA degree in physics and mathematics from Franklin College and an MS degree in physics from Virginia Polytechnic Institute. Before joining Union Carbide, he



Cleveland

worked for two years with the Nuclear Power Generation Division of Babcock and Wilcox in Lynchburg, Va. He is a member of the American Nuclear Society.

Cleveland and his wife, Barbara, live at 16 Crest Drive, Orchard Knob Subdivision, Clinton. They have a son and a daughter.

wanted. . .

ORNL

RIDE from Outer Drive, New York Avenue area, Oak Ridge, to East Portal, straight days. Beshier Nabardi, plant phone 4-7094.

CAR POOL MEMBER from West Hills/West Town/Rocky Hill area, Knoxville, to East Portal, 8:15-4:45. Wilma Nichols, plant phone 4-6688, home phone 588-5187.

RIDERS for NEW VAN POOL from West Knoxville area to any portal, 8-4:30. Dean Treadway, plant phone 4-6580, home phone 584-4879.

TWO CAR POOL MEMBERS from West Knoxville/Walker Springs Exit area, straight days. Karen Cromer, plant phone 4-4163, home phone 693-6917.

CAR POOL MEMBER from Inskip area, Knoxville, to East Portal, 8:15-4:45. Freda Cox, plant phone 4-4065, home phone 689-4801.

division death. . .



Mr. Ferguson

Ernest R. Ferguson Sr., ORNL's Laboratory Protection Division, died February 25 in a Knoxville hospital. A resident of Knoxville, he was a 35-year veteran of the Laboratory.

Survivors include his wife, Margie, 2309 Sun Valley Road, Knoxville; a daughter, Aloha Patterson; four sons, Ernest Jr., Joseph, Robert and Charles; three stepdaughters, Cathy Daniels, Paulette Ramsey and Nora King; and a stepson, Carlos Ramsey.

Funeral services were held at Kim Watt Baptist Church, with burial in Clarks Grove Cemetery, Blount County.

JOIN or FORM CAR POOL from Clinton, via Edgemoor Road, to East Portal, 8-4:30. Linda Maddox, plant phone 4-5448, home phone 457-5162.

JOIN CAR POOL from North Knoxville/St. Mary's area (willing to drive to meet a car pool), straight days. Margaret Merhoff, plant phone 6-2718, home phone 525-5203.

Y-12 PLANT

JOIN CAR POOL from East Knoxville to North Portal, straight days. Wilena Carter, plant phone 4-0135, home phone Knoxville 525-2365.

ORGDP

CAR POOL MEMBERS from Emory Valley area to Portal 1, 2 or 4, straight days. R. Wavrick, Knoxville 576-0324, or Fred Campbell 576-1913.

CAR POOL members from Emory Valley or Woodland areas, Oak Ridge, to Portal 3, straight day. Bob Roe, extension 6-0391, home 483-0405; or Gene White, extension 6-0106, home 483-6845.

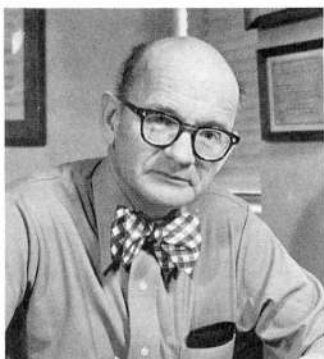
ORNL blood drive

The Red Cross blood drive in ORNL recently netted 442 units of blood. Of this number, 82 were first-time donors. Robert Kyle and Grover Cain, co-chairmen for the drive, expressed thanks to those who gave. Another 68 volunteers were deferred for various reasons.

Scoreboard to date:

Plant	Units
ORNL	465
ORGDP	507
Y-12 Plant	521
ORNL	442
Total	1,935

Meanwhile, the American Red Cross has announced that they are now supplying the St. Jude Children's Research Hospital with their blood needs.



Medicine Chest. . .

The perils of pinworms

by T. A. Lincoln, M.D.

(Editor's Note: Dr. Lincoln alternates his regular column with "The Medicine Chest," where he answers questions from employees concerning health in general. Questions are handled in strict confidence, as they are handled in our Question Box. Just address your question to "Medicine Chest," **NUCLEAR DIVISION NEWS**, Building 9704-2, Stop 21, Y-12, or call the news editor in your plant, and give him or her your question on the telephone.)

QUESTION: "How does one become infested with pinworms? Does bedding have to be boiled to avoid reinfestation? What is the cure?"

ANSWER: This question, answered in the September 18, 1975, edition of the **Nuclear Division News**, has been brought up to date as follows:

Children often carriers

Pinworms are small white or brownish parasitic worms which inhabit the intestines at least sometime in most of the families who have small children. The female migrates out the anus at night and deposits thousands of microscopic eggs on the surrounding skin. These eggs are remarkably tough and can survive in bedding and on clothing for several weeks. They can be transferred in the air when clothing and bedding are shaken. The eggs can frequently be found on the hands of children, especially under their fingernails. Because they cause itching around the anus and children and adults can't resist scratching, their hands get contaminated. Eggs which get into a person's mouth via contaminated hands or even inhalation of egg-bearing house dust mature in about six to seven weeks.

Because of the numerous opportunities for transmission, if one

child has the infection, it is likely that the rest of the family also has it. There are four highly effective treatments used. Piperazine salts (Antepar) are good but the medicine has to be given daily for one week. Pyriminium pamoate (Povan) is given as a single dose and repeated in two weeks. Any suspension of the drug stains most materials, and the stools will be colored bright red. Pyrantil pamoate (Antiminth, Combantrin) is also given as a single dose and repeated in two weeks. Mebendazole (Vermox) is given as a single dose in a chewable tablet.

Cleanliness important

A second course may be necessary in three weeks if the patient is not cured. The safety of any of these drugs during pregnancy has not been established. In all cases, the whole family has to be treated at the same time. In addition, care in personal cleanliness is important. The fingernails must be cut short and the hands washed carefully before any eating, after defecating and with general frequency to prevent reinfestation. Clothing and bed linen ideally should be boiled although this may not be practical. If the infestation in a family can't be eliminated by the medicine alone, then more strenuous boiling and housecleaning measures may be necessary.

TEACHING YOUR HEART to SURVIVE



PHYSICAL FITNESS TECHNIQUES—A new brochure on physical fitness, *Teaching Your Heart to Survive*, is available to interested Nuclear Division employees through the ORNL Health Division, 4500N. By illustrating the importance of physical fitness and how easily it can be achieved, this brochure is intended to enhance the joy of life and to improve the likelihood of survival should a heart attack occur. The brochure includes information on heart attack warnings and what to do about them, exercise programs, target heart rates and desired versus average weight charts.

About people. . .

5572-4



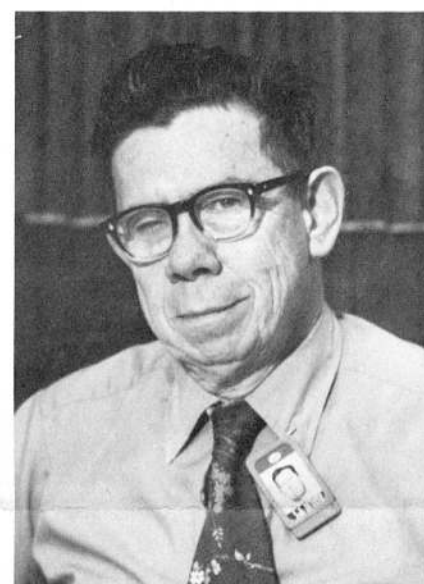
Dummer

Sherron

Maurer



Russell



Ketchen

Stanley I. Auerbach and **Charles C. Coutant**, ORNL's Environmental Science Division, have been asked to serve on the staffs of two major scientific publications. Auerbach was named an editor of **Environment International**, a new journal of science, technology, health, monitoring and policy. Coutant was appointed to a three-year term on the advisory board of **Environmental Science and Technology**.

Three employees in the Paducah Engineering Division have achieved professional levels in three disciplines. **Dave Dummer Jr.**, a drafting technician, since 1975, has been licensed as a Kentucky state land surveyor. **Tom Sherron**, a drafting technician, employed at Paducah since 1977, has been certified as an associate engineering technician. **Don Maurer**, an electrical engineer, has been licensed by the state of Kentucky as a professional engineer.

Eugene E. Ketchen, an industrial hygienist in ORNL's Health Division, has been certified by the American Board of Industrial Hygiene (ABIH). To gain certification, he had to pass extensive written examinations and have five years experience as an industrial hygienist. A Carbider since 1957, Ketchen is a member of ABIH, American Industrial Hygiene Association and the American Chemical Society.

James K. W. Mardian, a postdoctoral researcher in the University of Tennessee-Oak Ridge Graduate School of Biomedical Sciences, has been awarded a one-year American Cancer Society postdoctoral fellowship to conduct basic research in biology. (The Graduate School is operated under the auspices of the University of Tennessee and ORNL's Biology Division, where it is located.) Under the fellowship, Mardian will investigate the effect of a particular class of proteins found in the chromosomes — the structures within cells along which genes are located — on the structure of genetic material.

Gary N. Sharp, Y-12 Fire Department, was recently named "squad member of the month" by the Knoxville Emergency Rescue Squad. He was the first to be named to the honor. Sharp, who lives on Clowers Drive in Knoxville, responded to a leaking chemical truck off I-40 near the Knoxville city limits. He is a paramedic and has completed a hazardous materials handling course. Sharp also serves as state coordinator for an extrication course run jointly by the state medical services and the Tennessee Association of Rescue Squads.



Regan



Sharp



Mardian



Slaughter



FIREMEN COMPLETE COURSE—A recent graduating class of firemen at ORGDP covered more than 80 hours in the Fire Department's basic training course. From left are C. C. "Mac" McSwain, superintendent of the Security and Plant Protection Division; Lieutenant J. A. "Tony" Cox; Captain David A. Coleman, primary instructor; Lieutenant David M. Hope; Fire-Driver Ben L. Loposser; Lieutenant Harry L. Williams; Chief William J. DeRossett and Lieutenant Carroll R. Thorne.

James D. Regan, a researcher in ORNL's Biology Division, has been selected as a Fellow of the Japan Society for the Promotion of Science. As a Fellow, Regan will spend the months of March to June, 1980, doing research at the Mie State Medical School in Tsu, Japan, and presenting seminars at various Japanese universities. While in Japan, he will be working with Dr. Susumu Takeda, a former postdoctoral fellow in the Biology Division.

Regan, a native of Lancaster, Ohio, joined the Biology Division staff in 1964 as a National Institutes of Health postdoctoral fellow, and became a permanent staff member two years later. He is a member of the American Association for Cancer Research, the American Society of Biological Chemists, the American Society of Human Genetics and the American Society for Photobiology.

Liane Russell, a researcher in ORNL's Biology Division, will be inducted into the Hunter College Hall of Fame next month at the Alumni Association's annual luncheon, to be held at the Americana Hotel in New York City. Inductees to the Hall of Fame are chosen each year from outstanding graduates of Hunter College, part of the City University of New York system.

Russell came to ORNL in 1947; since 1975 she has been head of the Biology Division's Mutagenesis and Teratogenesis Section. She was scientific advisor to the U.S. delegation at the first Atoms for Peace Conference, held in Geneva, Switzerland, in 1955. In 1973, she was the first woman and the youngest person ever to receive the internationally awarded Roentgen Medal.

Gerald M. Slaughter, ORNL's Metals and Ceramics Division, has been selected to present the Comfort A. Adams Lecture at the American Welding Society's annual meeting. The Society created the lectureship in 1943 to honor Adams as its founder and first president. The award is presented annually by the Board of Directors to "an outstanding scientist or engineer for a lecture presenting some new and distinctive development in the field of welding."

Slaughter, the manager of M&C's engineering materials section, will speak on "The Technology of Brazing and Soldering is Vital to the Industrial Economy."

Prototype refrigerator-freezer offers savings, convenience

A prototype refrigerator-freezer that offers major energy savings without sacrificing convenience features has been developed through the Residential and Commercial Appliance Program managed by the Laboratory for DOE.

The new refrigerator-freezer, developed jointly with Arthur D. Little, Inc., of Cambridge, Mass., and Amana Refrigeration, Inc., of Amana, Iowa, is one of the products resulting from the DOE program which is designed to develop and test marketable energy-efficient appliances in cooperation with private industry.

The prototype unit incorporates an improved evaporator design and control system, which provides automatic defrost and dual compartment control without the usual increase in power consumption. It can operate using less than half the energy allowed under California's existing minimum energy efficiency standards of four kilowatt hours a day for a 16-cubic-foot refrigerator-freezer. (Federal standards for these appliances are currently under development.)

Preliminary tests show that the new refrigerator-freezer provides all of the conveniences of conventional models, preserves food equally as well or better, and requires substantially less energy to operate than units currently available.

Major areas of improvement include:

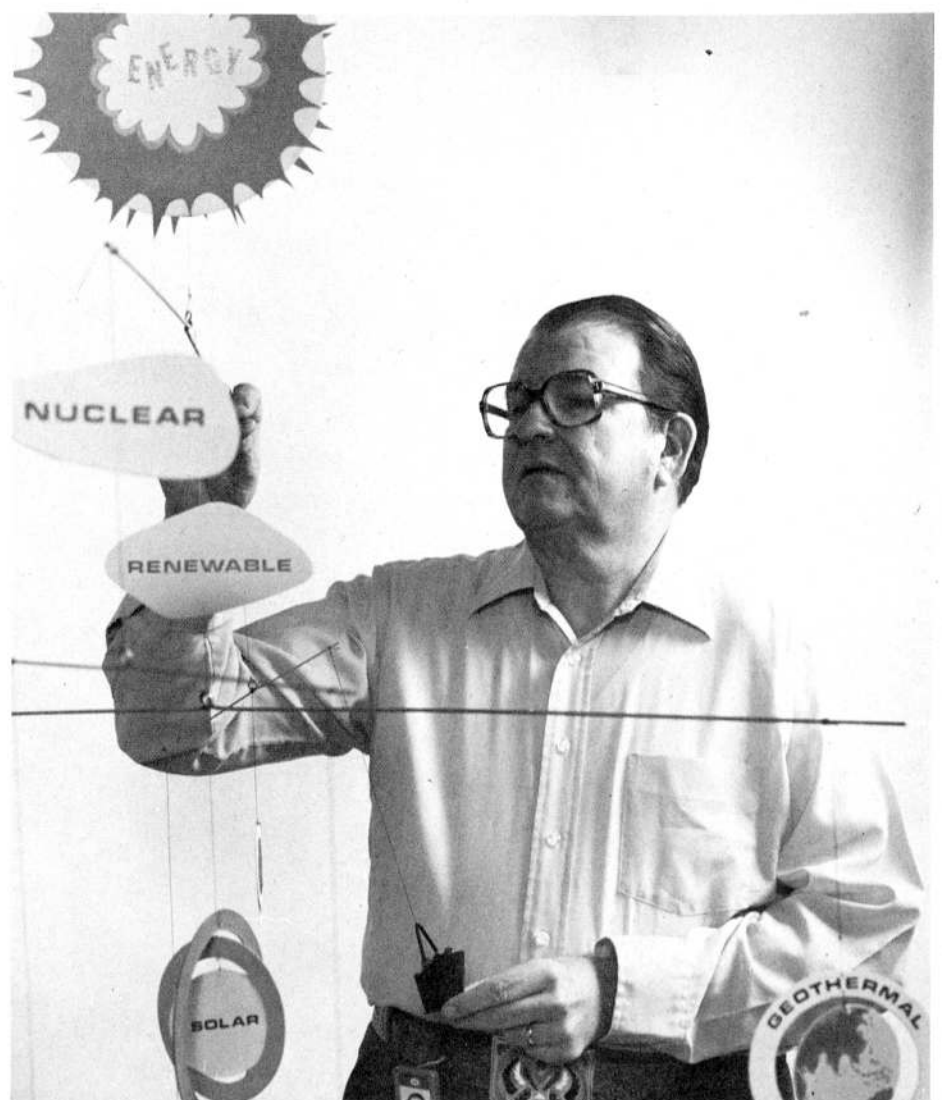
- **Insulation**—A computer-optimized cabinet insulation package, using polyurethane foam, reduces the prototype unit's heat load by 20 percent of that of the lowest energy-consuming refrigerator-freezer on the market.
- **Door design**—The unit incorporates a new door design

which helps minimize air infiltration and thermal conduction into the food storage area.

- **Evaporator design and control system**—Through use of an improved evaporator design, the automatic defrost feature is provided in the new unit without the normal increase in energy consumption. The prototype refrigerator-freezer, which uses a dual compartment control system, is unlike many existing units in which active control is provided for only one compartment while the other compartment's temperature simply changes according to the amount of food stored.

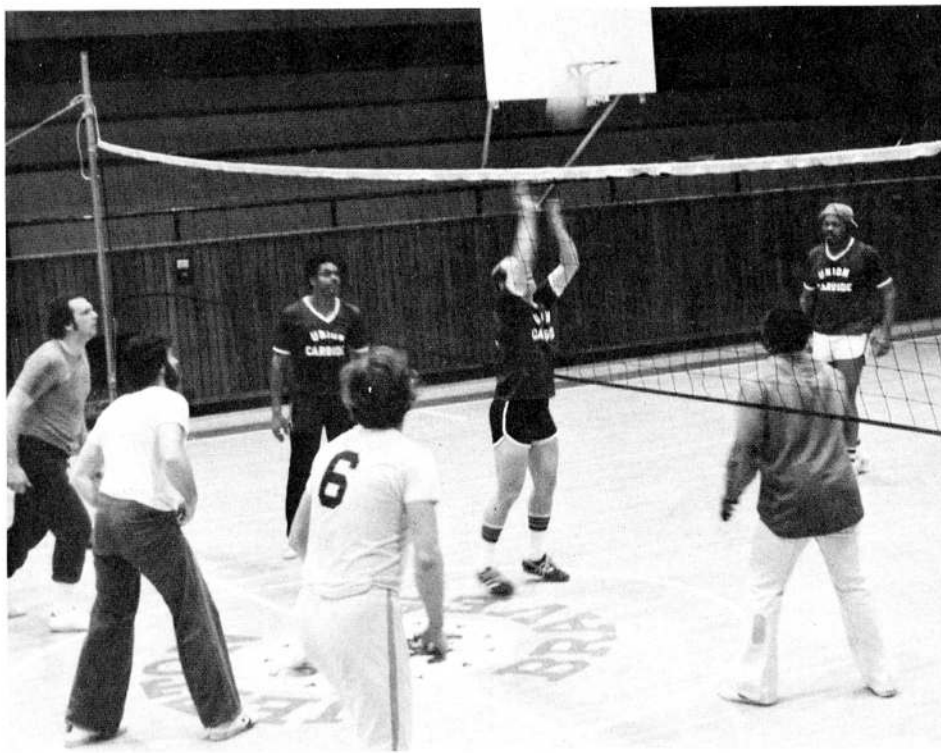
The next phase of the program will be field demonstration of the unit to evaluate the new design's performance and reliability at the consumer level. Costs of the project will continue to be shared by Amana, Arthur D. Little, Inc., and DOE through the Laboratory.

For additional information, contact Energy Division employees, Virgil O. Haynes and Donald J. Walukas at extensions 4-5211 and 4-5215, respectively.



ENERGY MOBILE—J. T. White of ORNL's Graphic Arts Department puts the finishing touches on an energy mobile for the Energy Division. The mobile, designed by Sam Beall, emphasizes different energy alternatives, such as geothermal, fusion, solar, to name a few.

recreationotes. . .



REACHING FOR THE TOP—Mike Flood, center, reaches to return a volley during the Paducah Volleyball League championship finals. The Paducah plant team captured second place honors in tournament play and the third place trophy in league play.

Volleyball leagues. . .

Mid-March finds competition in the volleyball leagues thick and heavy. The Taxi Squad heads up the Atomic League; the Fed's the Nuclear League; the Net Profits the North Division; and the Flockers find themselves in first place in the South Division.

League standings follow:

ATOMIC LEAGUE			CARBON LEAGUE NORTH DIVISION		
TEAM	Won	Lost			
Taxi Squad	35	6	Net Profits	27	3
Diggers 3	33	12	Wild Bunch	23	4
Diggers 4	24	18	Spinners	27	6
			Mother Sluggers	23	7
			Fes-Kids	21	9
			Wild Turkeys	20	10
			Spiders	18	15
			Group	17	15
			Attic Dwellers	13	20
			Quasineers	9	15
			Deltas	9	21
			Gneiss Guys	5	28
			Folleyballers	6	30
NUCLEAR LEAGUE			SOUTH DIVISION		
Fed's	24	3	Flockers	31	5
Dirty Half Dozen	27	6	Zodiacs	26	7
Over-The-Hill-Gang	21	6	Bareskins	25	11
Artie's Army	23	7	Pogo's	20	10
Gauss House Gang	20	7	Devils	18	9
Bawlers	19	11	Condensed Matter	19	11
Coneheads	17	10	Storm Troopers	17	13
Beta-2 Rotators	16	11	Bombers	15	12
Streaking Stokers	18	18	Odds and Ends	18	18
Rad-Fizz	15	15	Element of Surprise	14	22
Head Smashers	12	15	Gaggle	9	18
Six Easy Pieces	12	18	Volleytears	10	20
Spiked Bunch	8	15	Bear Creek All Stars	10	26
Mean Green Machine	8	19			
Maxwell Demons	8	19			
JC's	6	24			
Gag-Genes	5	25			
Number Two	2	28			



SHAKESPEAREAN THESPIANS—"Richard the Second," Shakespeare's tragic tale of a king who set into action events which led to England's War of the Roses, is the Oak Ridge Playhouse's current production, to be seen March 23, 24, 30 and 31 at 8:20 p.m. at the Playhouse. Nuclear Division participation includes, seated from left, Julia (Mrs. Robert) Clausing; Pat Roth and Libbie Landers. Standing are Anthony Cooper, Richard Baylor, Bill Thiessen and Nat Shulman.

UT-Oak Ridge Graduate Program

Mail to: Oak Ridge Resident Graduate Program
Post Office Box 117
Oak Ridge, TN 37830

I would appreciate more information on the UT-Oak Ridge Resident Graduate Program.

Name _____

Address _____

Telephone Number _____

I have an interest in the following type of course(s):

How many others do you know who would also be interested in the course(s) cited above? _____

I have an interest in the following degree program:

Free evening graduate classes offered at UT-Oak Ridge

Is the course work you took a few years ago outdated? Could you use a refresher? Do you need management course work to supplement your technical education? Would another master's or doctoral degree enhance your job performance and advancement? In general, if you would benefit from graduate courses in the energy or related sciences or from business management course work, please read on.

Union Carbide will reimburse you for half the tuition cost as each course is completed, and, if you choose to complete a degree program, Carbide will pay the other 50 percent when you finish. Past students have found this to be an attractive graduation present! Thousands have enrolled in the University of Tennessee—Oak Ridge Resident Graduate Program since its beginning in 1946, including the director of ORNL and others in key management positions throughout the Nuclear Division. Over 150 students currently are enrolled.

Classes are held evenings in the Special Training Division Building of the Oak Ridge Associated Universities, located on Laboratory Road directly behind the Federal Building. The same UT Knoxville

graduate school standards apply to the Oak Ridge program, and the faculty are also the same except for a few highly qualified faculty who reside in Oak Ridge and are also employed by Carbide.

The courses offered are largely the result of Carbide employees who express a need or interest in a particular course. Live courses can usually be offered with an enrollment of only 10 students, and videotape courses require as few as three students. Please call or come by the UT-OR Resident Graduate Program Office, 576-3429, or simply mail the form below. Registration for spring quarter will be March 26 and 27. The office manager is Rita V. Harden, and Gerald E. Hills, UTK assistant dean of graduate studies, is director of the program.

safety scoreboard

Time worked without a lost-time accident through March 15:

Y-12 Plant337 Days	10,599,000 Man-Hours
ORGDP93 Days	3,330,163 Man-Hours
ORNL157 Days	4,947,808 Man-Hours
Paducah216 Days	2,680,000 Man-Hours

A different drummer. . .

'Ski patrolling, scouting have common ideals'

Cloyd O. Beasley Jr., a physicist in the Fusion Energy Division, is the Nuclear Division's answer to the "Renaissance Man."

In addition to serving as a senior ski patrol member at Snowshoe Mountain, W. Va., he is also a Red Cross advanced first aid instructor and teaches CPR (cardiopulmonary resuscitation) techniques as a member of Fusion's emergency squad. He plays the flute for the Oak Ridge Symphony, is a member of the American Physical Society and the Concord Yacht Club, and has been active with the Boy Scouts of America since 1962.

Beasley combines ski patrolling with scouting and another hobby, photography.

Because the season is still right and the space limited, Beasley chose to narrow in on his favorite winter sport—skiing. By serving as a ski patrol member, he combines a special pastime with scouting and another hobby, photography.

"Once every two or three weeks, I take three members of my scout troop to Snowshoe," says Beasley. "One of the boys is always Burt Denton, a junior ski patrol (JSP) member whose father, Bill, is a construction engineer at ORGDP. The other two slots in my car rotate among scouts who are not JSP members."

'Once every two or three weeks, I take three members of my scout troop to Snowshoe.'

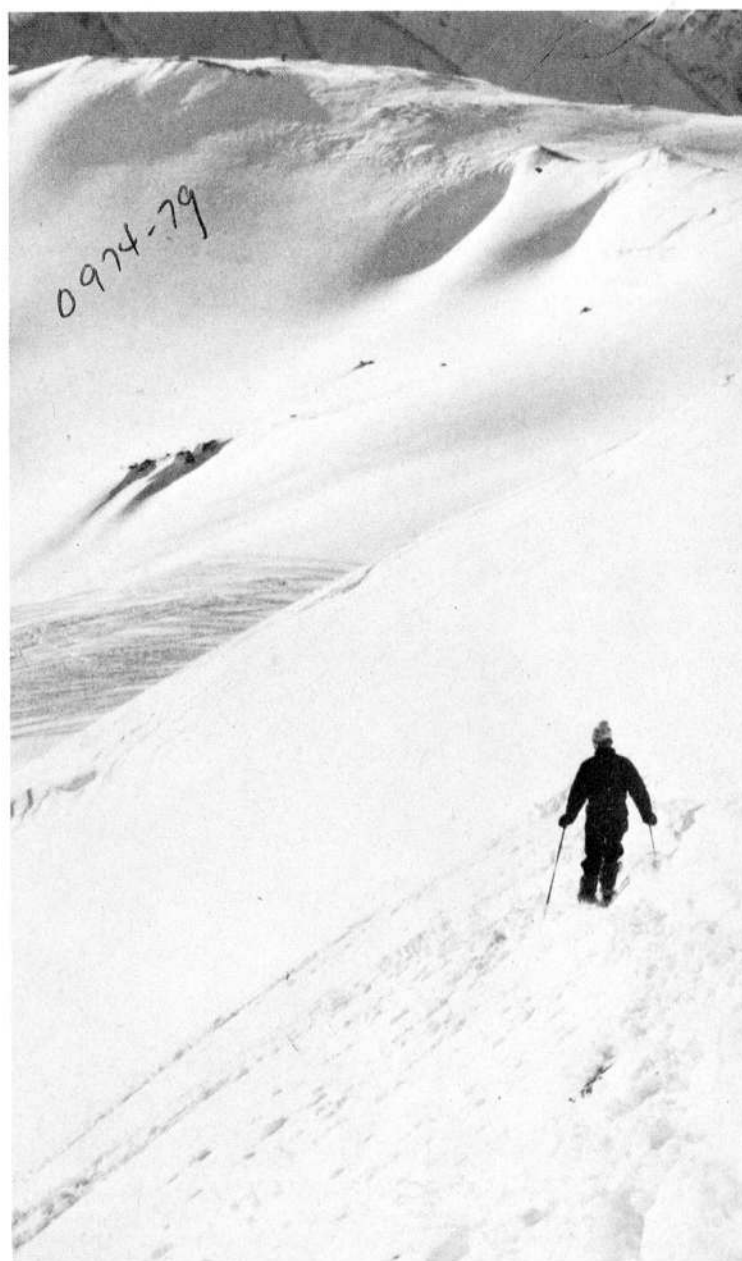
"To become a ski patrol candidate, one must have 60 hours in first aid and CPR training, have suitably strong skiing abilities, and must serve an 'internship' with experienced patrolers so as to learn specific maneuvers, such as toboggan handling. Whenever a person feels qualified, he must pass a four-part test—written, practical first aid, skiing and toboggan handling. To remain current, a ski patrol member annually must take an eight-hour first aid refresher course and a four-hour refresher at the ski area."

"In the last 10 years, eight members of our troop have qualified for the junior ski patrol. I've found the JSP to be compatible with scouting ideals. Both teach the boys self reliance, leadership skills, and how to get along with people."

How did Beasley get interested in skiing? Not from having lived in Wisconsin! "I didn't start skiing until I moved to Tennessee from Wisconsin in 1963."

He returned in September 1978 from a 10-month leave of absence to the Max Planck Institute of Plasma Physics near Munich. As a result, many of his ski photographs were taken in Europe.

PHOTOGRAPHS CLOCKWISE from top: 1) Viewing the Val d'Isere in France, the home town of Jean Claude Killet and the world's largest ski area—160 square miles, 2) Checking out a steep, untracked slope at St. Anton in the Arlberg, 3) Testing of ski patrol candidates at Snowshoe, and 4) Beasley's scouts practicing first aid—on him!



Quality Assurance emphasized at Paducah Plant



QUALITY ASSURANCE COMMENDATION—Ronnie Reid, left, and David Litchfield, Paducah Maintenance Division, were recently commended for their quick reporting of an observed abnormal condition before serious damage or injury was done. Litchfield is holding a motor wheel which cut through the brake housing as it moved outward on the shaft.

The Paducah plant recently emphasized the management function of quality assurance by designating the week of March 19, "Quality Assurance Emphasis Week."

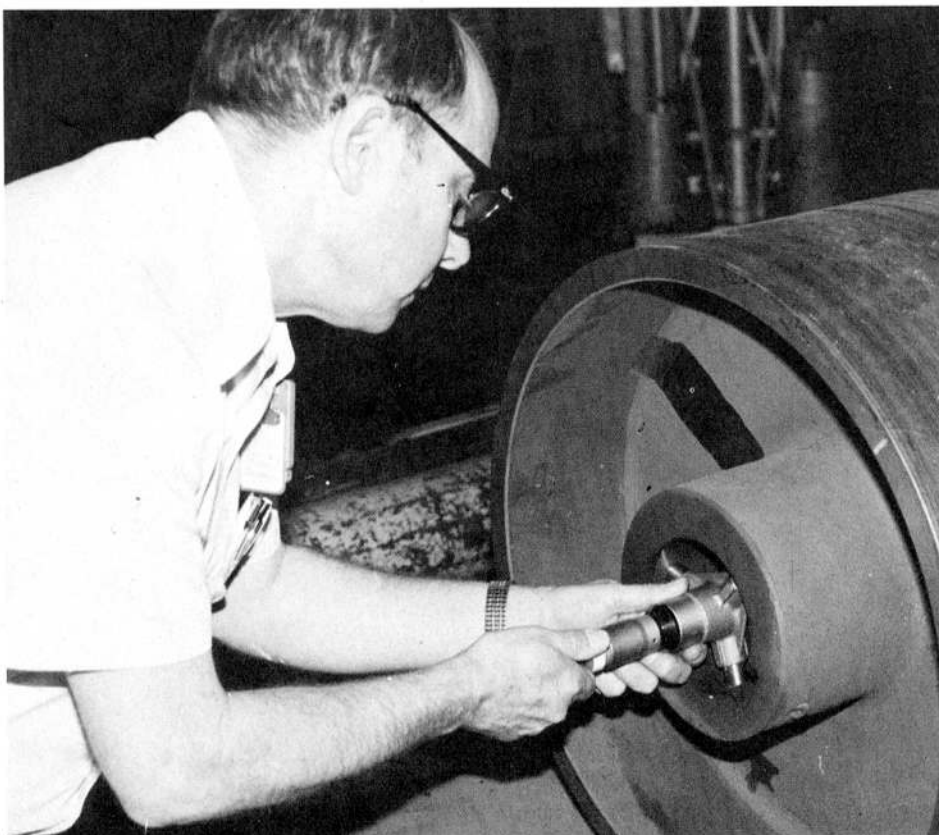
"We are nearing the midpoint of this fiscal year, which is a good time to evaluate where we are in our QA program in meeting our objectives," said Clayton D. Zerby, plant manager. "It is also a good time to further emphasize some aspects of the program that need more attention," he added.

Various promotional activities in the form of bulletins, outdoor signs and a QA slogan contest were conducted to stress the importance of recognizing, adequately defining and alleviating potential quality problems.

"Being vigilant and continually looking for quality problems is a vital part of the QA program," said Gene Waggoner, plant quality assurance coordinator. For example, two maintenance employees recently noted a process motor brake wheel which had loosened on the motor shaft. The wheel cut its way through the brake housing as it moved outward on the shaft and was in danger of being thrown from the rotating motor.

The quality investigation resulting from the brake wheel incident prompted changes in assembly procedures and more rigid quality control methods.

"I have been pleased to see that our QA program has strong support," Zerby commented. "Continued emphasis in keeping our QA program strong is very much encouraged."



QUALITY ASSURANCE RESULTS—Paul Graves, Paducah Quality Evaluation Department, dimensionally inspects a motor brake wheel prior to installing it on the shaft. These changes in assembly procedures resulted from a quality assurance investigation directed toward preventing the problem from occurring again.

Savings Plan-Personal Investment Account

	Fixed Income Fund	UCC Stock	Equity Investment Fund
December 76	13.0553	59.2723	8.8166
December 77	14.2017	40.9096	8.0427
December 78	15.4728	34.6959	8.4098
January 79	15.5878	36.0543	8.7144
February 79	15.7023	36.1825	8.4863

Note: Fixed Income Fund unit values reflect interest additions to achieve the guaranteed effective annual interest rate of 9.01% for 1979. Union Carbide stock values are the average cost of stock purchased during the month plus brokerage charges. Equity Investment Fund unit values represent the month-end market value of securities held by the Fund. The price of each unit is determined by dividing the total value of the securities by the number of units in the Fund.

division deaths. . .

Charles E. Normand, a Recreation Department staff member at Y-12, died March 5 in Knoxville. He joined Union Carbide in 1957 in the Public Information Office.

Mr. Normand had served as a personnel development specialist, ORNL non-citizen visitor coordinator and conference coordinator. A resident of 111 Inn Lane, Oak Ridge, he was a former city councilman and board member of several civic organizations.

Survivors include his mother, Hazel; three sons, Charles, Danny and Jimmy; a sister, Mary Bush; and a twin brother, Tom.

Burial was in Oak Ridge Memorial Park. The family has requested that any memorials be sent to Community Services for Exceptional Citizens, 214 West Tennessee Avenue, Oak Ridge.



Mr. Normand



Mr. Miller



Mr. Sloan

William A. Sloan Jr., Civil and Architectural Engineering, Y-12, died March 14 in a Knoxville hospital. A native of Anderson, S.C., he attended Norwich University and graduated from Clemson College. Prior to joining Union Carbide in 1958, he worked with Homes, Inc., and the Tennessee Valley Authority. He was a veteran of the U.S. Air Force.

Survivors include his wife, Juanita King Sloan; a daughter, Ginger Billingsley; sons, William A. III and James M.; and his mother, Virginia F. Sloan.

Funeral services were held at Mann's Heritage Chapel with interment in Highland Memorial Cemetery, Knoxville.

Percy Miller Jr., Alpha 5 West Shop, Y-12, died March 16 at his Route 4, Rockwood home. A native of the Glen Alice Community, he joined Union Carbide in 1954, after farming and working with the Southern Railroad. He was a veteran of the U.S. Army.

Survivors are his wife, Patricia; sons, Harold and Donnie; daughter, Suzanne Pelfrey; and mother, Mamie Miller.

Funeral services were held at the Evans Funeral Home Chapel, Rockwood, with burial in the Glen Alice Cemetery.



UNION CARBIDE CORPORATION

NUCLEAR DIVISION
P.O. BOX Y, OAK RIDGE, TENNESSEE 37830

ADDRESS CORRECTION REQUESTED

BULK RATE
U.S. Postage
PAID
Union Carbide
Corporation

